REMARKS

The Office Action mailed August 22, 2003 has been reviewed and carefully considered. Canceled claim 3 has now been re-instated. Original claim 6 has now been redrafted into independent form as new claim 1, and includes the limitations particular to claim 5 from which claim 6 directly depended. Claim 10 has been redrafted into independent form as new claim 8, a minor grammatical correction being made. Canceled claim 15 has also been re-instated. Original dependent claim 17 has been redrafted into independent form as the new claim 14. Respective claim dependencies have been revised so that claims 7, 11 and 18 depend from claims 1, 8 and 14, respectively. No other claim amendments have been made. Claims 1-4, 7-8, 11-16, 18 and 25 are now pending, of which the independent claims remain 1, 8 and 14. Reconsideration of the above-identified application, as amended and in view of the following remarks, is respectfully requested.

Claims 10 stands objected to for an informality which is most since claim 10 has now been canceled.

Claims 1, 2, 4-5, 14 and 16 stand rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,526,092 to Nelson et al. ("Nelson").

Claims 6 and 17 have now been redrafted into independent form as the new claims 1 and 14, respectively. Page 7 of the Office Action acknowledges that Nelson does not anticipate what are now claims 1 and 14. The rejection of the latter claims is addressed below in the appropriate section.

Claim 3 pertains to this section of the claim analysis, because, just prior to the instant amendment, claim 3 had been redrafted into independent claim 1. Original claim 3

has now been re-instated.

Claim 3 recites "wherein the host computer, prior to the creation of the file for production, attaches information <u>relating to</u> a storage address of the flash memory, a <u>compression state</u>, and a <u>booting state</u> for the production file," a limitation that Nelson fails to disclose or suggest.

The "Response to Arguments" section of the Office Action cites lines 35-65 of column 9, and lines 1-23 of column 11, of Nelson, which describe the "Record type" and "Checksum" fields, but do not disclose or suggest "information relating to a" . . . "compression state, and a booting state for the production file" as explicitly required by the language of claim 3. Accordingly, for at least this reason, Nelson fails to anticipate the invention as recited in claim 3. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 8, 10, 12, 13 and 25 stand rejected under 35 U.S.C. 103(a) as unpatentable over Nelson in view of U.S. Patent No. 5,689,640 to Okanoue.

Claim 10 has now been redrafted into independent form as the new claim 8.

Claim 8 recites:

"a first memory means coupled to said communication means for storing a boot program, operating codes, and said operating system firmware; and

a second memory means coupled to said first memory means for storing a copy of information stored in said first memory means to be replaced with said updated firmware;

wherein said personal computer is further operable for storing said updated firmware downloaded from said host computer in a corresponding region of said first memory means; and

wherein the replaced updated firmware in said second memory means is

transferred back to the corresponding region of said first memory means."

At page 6, the Office Action at least acknowledges that Nelson fails to disclose or suggest the second memory means, and cites lines 30-42 and 54-61 of column 5 of Okanoue to make up the difference.

FIG. 7 of Okanoue shows an active memory 404, and two non-volatile storing memories 402, 403 connected to a bus so that old-version firmware can be retained for potential restoration even though new-version firmware has now been received.

At page 6, the Office Action proposes, without specifying how, that Nelson be modified in view of Okanoue "to backup old firmware to be used in case new updated firmware has problems."

Nelson, however, copies downloaded upgrade program data from RAM 216 to Flash PROM 217. Okanoue would therefore suggest, if anything, replacing the Nelson RAM 216 with a non-volatile memory, modifying Nelson to retain the downloaded upgrade program data (col. 3, line 48) and, once there are two differently-versioned copies of the data in the non-volatile memory, replacing the older of the two copies with any subsequently downloaded version.

Notably, for the two memories of Nelson/Okanoue, the non-volatile memory and the flash PROM, there is no hint or suggestion of a copy being transferred from one memory to the other and then "transferred back."

In particular the proposed combination fails to disclose or suggest:

"a first memory means coupled to said communication means for storing a boot program, operating codes, and said operating system firmware; and

a second memory means coupled to said first memory means for storing a

copy of information stored in said first memory means to be replaced with said updated firmware;

wherein said personal computer is further operable for storing said updated firmware downloaded from said host computer in a corresponding region of said first memory means; and

wherein the replaced updated firmware in said second memory means is transferred <u>back</u> to the corresponding region of said first memory means."

For at least this reason, the cited references, alone or in combination, fail to anticipated or render obvious the invention as recited in claim 8. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 6, 7, 11, 17 and 18 stand rejected under 35 U.S.C. 103(a) as unpatentable over Nelson in view of Okanoue.

Claim 6 has now been redrafted into independent form as claim 1, which recites:

"a personal computer (PC) for receiving the production file downloaded from the host computer and for storing the downloaded file in a corresponding region of the flash memory; and

a <u>DRAM</u> for storing a copy of the production-processing program from the flash memory when upgrading the production-processing program so that the upgrading can be performed in the DRAM;

wherein the PC stores the production file in the flash memory using the production-processing program in the flash memory."

At page 7, the Office Action concedes that Nelson and Okanoue do not state the use of DRAM.

As mentioned above, FIG. 7 of Okanoue shows an active memory 404, and

two non-volatile storing memories 402, 403 connected to a bus so that old-version firmware can be retained for potential restoration even though new-version firmware has now been received.

At page 6, the Office Action proposes, without specifying how, that Nelson be modified in view of Okanoue "to backup old firmware to be used in case new updated firmware has problems."

Nelson, however, copies downloaded upgrade program data from RAM 216 to Flash PROM 217. Okanoue would therefore suggest, if anything, replacing the Nelson RAM 216 with a non-volatile memory, modifying Nelson to retain the downloaded upgrade program data (col. 3, line 48) and, once there are two differently-versioned copies of the data in the non-volatile memory, replacing the older of the two copies with any subsequently downloaded version.

Nelson/Okanoue design does not, however, involve or suggest "a <u>DRAM</u> for storing a copy of the production-processing program from the flash memory when upgrading the production-processing program so that the upgrading can be performed in the <u>DRAM</u>" as explicitly specified by the language of claim 1. First, Nelson updating is disclosed to occur in the flash PROM 217, but not in the RAM 216 (col. 14, lines 19(20)-22(23)). Second, while the Okanoue storing memories 402, 403 are non-volatile, DRAM is volatile. It would not make sense to implement volatile RAM such as DRAM, because your backup copies, including the previous version kept as a backup, would disappear every time power is turned off to the Nelson modem 20 and every time the modem loses power.

For at least all of the above reasons, the cited references, alone or in combination, fail to anticipated or render obvious the invention as recited in claim 1.

Reconsideration and withdrawal of the rejection is respectfully requested.

As to claim 7, it depends from claim 1, and nothing in Okanoue can compensate for the shortcomings of Nelson.

As to claim 11, it depends from claim 8, which has been shown to distinguish patentably over the applied combination of references.

Regarding claim 17, it has now been redrafted into its original form as the new claim 14, while retaining the previous minor, formal corrections.

Claim 14 therefore recites "the method further comprises the step of duplicating the production-processing program in an externally connected <u>DRAM/SRAM</u> while upgrading the production-processing program in the <u>DRAM/SRAM</u>."

At page 7, the Office Action acknowledges that Nelson fails to disclose the above-quoted limitation of claim 14, and cites Okanoue to make up the difference.

As mentioned above, FIG. 7 of Okanoue shows an active memory 404, and two non-volatile storing memories 402, 403 connected to a bus so that old-version firmware can be retained for potential restoration even though new-version firmware has now been received.

At page 6, the Office Action proposes, without specifying how, that Nelson be modified in view of Okanoue "to backup old firmware to be used in case new updated firmware has problems."

Nelson, however, copies downloaded upgrade program data from RAM 216

to Flash PROM 217. Okanoue would therefore suggest, if anything, replacing the Nelson RAM 216 with a non-volatile memory, modifying Nelson to retain the downloaded upgrade program data (col. 3, line 48) and, once there are two differently-versioned copies of the data in the non-volatile memory, replacing the older of the two copies with any subsequently downloaded version.

Nelson/Okanoue design does not, however, involve or suggest "the step of duplicating the production-processing program in an externally connected DRAM/SRAM while upgrading the production-processing program in the DRAM/SRAM" as explicitly specified by the language of claim 14. First, no such duplicating is implied by the combination. Second, while the Okanoue storing memories 402, 403 are non-volatile, DRAM/SRAM is volatile. It would not make sense to implement volatile RAM, because your backup copies, including the previous version kept as a backup, would disappear every time power is turned off to the Nelson modem 20 and every time the modem loses power.

For at least all of the above reasons, the cited references, alone or in combination, fail to anticipated or render obvious the invention as recited in claim 14.

Reconsideration and withdrawal of the rejection is respectfully requested.

For the remaining rejected claims, each depends from a base claim and is deemed to be patentable for at least the same reason(s).

In view of the foregoing amendments and remarks, it is believed that this application is now in condition for allowance. The Examiner is invited to contact the undersigned in the event of any perceived outstanding issues so that passage of the case to

sue can be effected without the need for a further Office Action.

In the event that any additional fee is required to continue the prosecution of this Application as requested, please charge such fee to Deposit Account No. 502-470.

Respectfully submitted,

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5/3/04

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